

## INTERNATIONAL SEARCH REPORT

International Application No

EP2004/052000

**A. CLASSIFICATION OF SUBJECT MATTER**  
 IPC 7 C12N9/16 C12Q1/68 C12N15/00

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C12N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, EMBL, EMBASE, WPI Data, PAJ, CHEM ABS Data

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>WO 01/75067 A (HYSEQ INC ; LIU CHENGHUA (US); TANG Y TOM (US); DRMANAC RODOJE T (US)) 11 October 2001 (2001-10-11)            Protein #22196, SEQ ID NOS 22196 and 52564 &amp; DATABASE GENESEQ 'Online!            18 February 2002 (2002-02-18),            retrieved from EBI            Database accession no. ABG22205            abstract            &amp; DATABASE GENESEQ 'Online!            13 February 2002 (2002-02-13),            retrieved from EBI            Database accession no. AAS86392            abstract</p> <p>-----</p> <p>-/-</p>	2-7,9-20

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

## \* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*&\* document member of the same patent family

Date of the actual completion of the international search

9 February 2005

Date of mailing of the international search report

18.07.2005

Name and mailing address of the ISA  
 European Patent Office, P.B. 5818 Patentlaan 2  
 NL - 2280 HV Rijswijk  
 Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
 Fax: (+31-70) 340-3016

Authorized officer

Lanzrein, M

## INTERNATIONAL SEARCH REPORT

International Application No  
PCT/EP2004/052000

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>GUILLAUXEUX THIERRY ET AL: "The complete genomic sequence of 424,015 bp at the centromeric end of the HLA class I region: Gene content and polymorphism"          PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, vol. 95, no. 16, 4 August 1998 (1998-08-04), pages 9494-9499, XP002275546 &amp; ISSN: 0027-8424          table 1          &amp; DATABASE EMBL 'Online'          24 February 1998 (1998-02-24), retrieved from EBI          Database accession no. AC004204          abstract</p> <p>-----</p>	1,8
Y	<p>DATABASE SNP 'Online! SNP ID AP000508.1_67838          21 September 2001 (2001-09-21), XP002275856          retrieved from NCBI          Database accession no. SS4027402          abstract</p> <p>-----</p>	30-43
Y	<p>VEAL COLIN D ET AL: "Family-based analysis using a dense single-nucleotide polymorphism-based map defines genetic variation at PSORS1, the major psoriasis-susceptibility locus"          AMERICAN JOURNAL OF HUMAN GENETICS, vol. 71, no. 3, September 2002 (2002-09), pages 554-564, XP002275819 &amp; ISSN: 0002-9297          cited in the application          page 560, left-hand column, paragraph 2;          table 1</p> <p>-----</p>	30-43
A	<p>NAVIGLIO S ET AL: "UBPY: a growth-regulated human ubiquitin isopeptidase"          EMBO JOURNAL, OXFORD UNIVERSITY PRESS, SURREY, GB, vol. 17, no. 12, 15 June 1998 (1998-06-15), pages 3241-3250, XP002082281          ISSN: 0261-4189          figure 1</p> <p>-----</p> <p>-/-</p>	4-16

Best Available Copy

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP2004/052000

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	ASUMALAHTI KATI ET AL: "Genetic analysis of PSORS1 distinguishes guttate psoriasis and palmoplantar pustulosis." JOURNAL OF INVESTIGATIVE DERMATOLOGY, vol. 120, no. 4, April 2003 (2003-04), pages 627-632, XP002275993 & ISSN: 0022-202X table 3 -----	30-43

Best Available Copy

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/EP2004/052000

## Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
  
2.  Claims Nos.: 22-29 because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:  
see FURTHER INFORMATION sheet PCT/ISA/210
  
3.  Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1.  As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
  
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
  
3.  As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
  
4.  No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:  
claims 1-21, 30-43 (partially)

Remark on Protest

The additional search fees were accompanied by the applicant's protest.

No protest accompanied the payment of additional search fees.

**FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210**

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

**Invention 1: claims 1-21, 30-43 (partially)**

Isolated gene as defined in SEQ ID NOs 1-3, and splice variants thereof (SEQ ID NOs 52-55); vectors, host cells antibodies etc.; Use of a biallelic marker at position 1199 of SEQ ID NO 1 for diagnosis and genotyping.

---

**Invention 2: claims 1-21, 30-43 (partially)**

Biallelic marker at position 1262 of SEQ ID NO 1 and uses thereof for diagnosis and genotyping.

---

**Inventions 3-85: claims 1-21, 30-43 (partially)**

Biallelic marker at position 1444, 1490 ... 2525 (positions as specified in claim 30) of SEQ ID NO 1 and uses thereof for diagnosis and genotyping.

---

**Best Available Copy**

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box II.2

Claims Nos.: 22-29

Claims 22-29 concern a modulator of the polypeptide without giving a true technical characterization. Moreover, no such compounds are disclosed in the application as filed. As a consequence, the scope of said claims is unclear and the subject-matter is not sufficiently disclosed and supported (Art. 5/6 PCT). Therefore, no meaningful search can be carried out for these purely speculative claims (Art 17(2)(a)(ii) PCT).

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.

Best Available Copy

Best Available Copy

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2004/052000

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 0175067	A 11-10-2001	AU 3486501 A	14-08-2001
		AU 3995501 A	12-09-2001
		AU 4925101 A	15-10-2001
		AU 4972801 A	15-10-2001
		AU 5119401 A	15-10-2001
		AU 5521401 A	15-10-2001
		CA 2399681 A1	09-08-2001
		CA 2404501 A1	11-10-2001
		CA 2404555 A1	11-10-2001
		EP 1254266 A1	06-11-2002
		EP 1268762 A1	02-01-2003
		EP 1268510 A2	02-01-2003
		JP 2004502403 T	29-01-2004
		JP 2004500120 T	08-01-2004
		WO 0157266 A1	09-08-2001
		WO 0164839 A2	07-09-2001
		WO 0175067 A2	11-10-2001
		WO 0175064 A2	11-10-2001
		WO 0174836 A1	11-10-2001
		WO 0175093 A1	11-10-2001
		US 2004048249 A1	11-03-2004
		US 2003092112 A1	15-05-2003
		US 2003087370 A1	08-05-2003
		US 2003096279 A1	22-05-2003
		US 2003235883 A1	25-12-2003
		US 6436703 B1	20-08-2002
		US 2002061567 A1	23-05-2002
		US 2003180722 A1	25-09-2003
		US 2002146757 A1	10-10-2002

Past Available Copy